

Colombo.ST25
SEQUENCE LISTING

<110> Maria Assunta, Costa
Domenico, Geraci
Paolo, Colombo
Rosa, Passantino
Angela, Bonura

<120> HYPOALLERGENIC VARIANTS OF PARIETARIA JUDAICA MAJOR ALLERGENS, USE
AND COMPOSITIONS THEREOF

<130> 82045 PCT

<160> 20

<170> PatentIn version 3.1

<210> 1

<211> 139

<212> PRT

<213> Parietaria judaica

<400> 1

Gln Glu Thr Cys Gly Thr Met Val Arg Ala Leu Met Pro Cys Leu Pro
1 5 10 15

Phe Val Gln Gly Lys Glu Lys Glu Pro Ser Lys Gly Cys Cys Ser Gly
20 25 30

Ala Lys Arg Leu Asp Gly Glu Thr Lys Thr Gly Pro Gln Arg Val His
35 40 45

Ala Cys Glu Cys Ile Gln Thr Ala Met Lys Thr Tyr Ser Asp Ile Asp
50 55 60

Gly Lys Leu Val Ser Glu Val Pro Lys His Cys Gly Ile Val Asp Ser
65 70 75 80

Lys Leu Pro Pro Ile Asp Val Asn Met Asp Cys Lys Thr Val Gly Val
85 90 95

Colombo.ST25

Val Pro Arg Gln Pro Gln Leu Pro Val Ser Leu Arg His Gly Pro Val
 100 105 110

Thr Gly Pro Ser Asp Pro Ala His Lys Ala Arg Leu Glu Arg Pro Gln
 115 120 125

Ile Arg Val Pro Pro Pro Ala Pro Glu Lys Ala
 130 135

<210> 2

<211> 139

<212> PRT

<213> Artificial Sequence

<220>

<223> mutagenized Parj1

<400> 2

Gln Glu Thr Cys Gly Thr Met Val Arg Ala Leu Met Pro Cys Leu Pro
 1 5 10 15

Phe Val Gln Gly Lys Glu Ala Ala Pro Ser Ala Gly Cys Cys Ser Gly
 20 25 30

Ala Lys Arg Leu Asp Gly Glu Thr Lys Thr Gly Pro Gln Arg Val His
 35 40 45

Ala Cys Glu Cys Ile Gln Thr Ala Met Lys Thr Tyr Ser Asp Ile Asp
 50 55 60

Gly Lys Leu Val Ser Glu Val Pro Lys His Cys Gly Ile Val Asp Ser
 65 70 75 80

Lys Leu Pro Pro Ile Asp Val Asn Met Asp Cys Lys Thr Val Gly Val
 85 90 95

Val Pro Arg Gln Pro Gln Leu Pro Val Ser Leu Arg His Gly Pro Val
 100 105 110

Thr Gly Pro Ser Asp Pro Ala His Lys Ala Arg Leu Glu Arg Pro Gln
 115 120 125

Ile Arg Val Pro Pro Pro Ala Pro Glu Lys Ala
 130 135

<210> 3

<211> 102

Colombo.ST25

<212> PRT

<213> Parietaria judaica

<400> 3

Glu Glu Ala Cys Gly Lys Val Val Gln Asp Ile Met Pro Cys Leu His
1 5 10 15

Phe Val Lys Gly Glu Glu Lys Glu Pro Ser Lys Glu Cys Cys Ser Gly
20 25 30

Thr Lys Lys Leu Ser Glu Glu Val Lys Thr Thr Glu Gln Lys Arg Glu
35 40 45

Ala Cys Lys Cys Ile Val Arg Ala Thr Lys Gly Ile Ser Gly Ile Lys
50 55 60

Asn Glu Leu Val Ala Glu Val Pro Lys Lys Cys Asp Ile Lys Thr Thr
65 70 75 80

Leu Pro Pro Ile Thr Ala Asp Phe Asp Cys Ser Lys Ile Gln Ser Thr
85 90 95

Ile Phe Arg Gly Tyr Tyr
100

<210> 4

<211> 102

<212> PRT

<213> Artificial Sequence

<220>

<223> mutagenized Parj2

<400> 4

Glu Glu Ala Cys Gly Lys Val Val Gln Asp Ile Met Pro Cys Leu His
1 5 10 15

Phe Val Lys Gly Glu Glu Ala Ala Pro Ser Ala Glu Cys Cys Ser Gly
20 25 30

Thr Lys Lys Leu Ser Glu Glu Val Lys Thr Thr Glu Gln Lys Arg Glu
35 40 45

Ala Cys Lys Cys Ile Val Arg Ala Thr Lys Gly Ile Ser Gly Ile Lys
50 55 60

Colombo.ST25

Asn Glu Leu Val Ala Glu Val Pro Lys Lys Cys Asp Ile Lys Thr Thr
65 70 75 80

Leu Pro Pro Ile Thr Ala Asp Phe Asp Cys Ser Lys Ile Gln Ser Thr
85 90 95

Ile Phe Arg Gly Tyr Tyr
100

<210> 5

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 5

attggatccc aagaaacctg cgggactatg

30

<210> 6

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 6

attaagcttg gctttttccg gtgcggg

27

<210> 7

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 7

cctggatccg aggaggcttg cggg

24

<210> 8

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 8

gcgaagctta tagtaacctc tgaaaatagt

30

<210> 9

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 9

attggatccc aagaaacctg cgggactatg

30

<210> 10

<211> 37

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 10

aaactgcagc accccgctga cggcgctgcc tctttcc

37

<210> 11

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 11

Colombo.ST25

gtgggatccg aggaggcttg cgggaaagtg gtgcag

36

<210> 12

<211> 37

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 12

aaactgcagc actccgccga cggcgccgcc tcctccc

37

<210> 13

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 13

gtgggatccg aggaggcttg cgggaaagtg gtgcag

36

<210> 14

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 14

cgcgatcca tagtaacctc tgaaaatagt

30

<210> 15

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

Colombo.ST25

<223> primer

<400> 15

cctggatcct gaggaggctt gcggg

25

<210> 16

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 16

cctgagctca tagtaacctc tgaa

24

<210> 17

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 17

cctgagctcg aggaggcttg cggg

24

<210> 18

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 18

cctgtcgaca tagtaacctc. tgaa

24

<210> 19

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 19

cctgtcgcacg aggaggcttg cggg

24

<210> 20

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 20

cctaagcttc taatagtaac ctct

24